

REMARKS

Claims 1-23 are pending. The specification has been amended to correct obvious minor errors and omissions.

Claims 1-2, 4, 6-14, and 18-23 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 6,352,753 to Nonaka et al. Applicants respectfully request reconsideration of this rejection.

Nonaka et al. discloses a first dielectric layer, a first boundary layer, a recording layer (second boundary layer), and a substrate, provided in that order. Significantly, Nonaka et al. teaches that the boundary layer necessarily is “in contact with the recording layer.” In the present invention as recited in independent claims 1 and 21, on the other hand, a layer containing a mixture of carbide and oxide is formed over a surface of the reflecting layer facing the recording layer. The claimed arrangement of layers is not taught by Nonaka et al. In addition, Nonaka et al. discloses that the Nonaka et al. does not anticipate the present invention as recited in claims 1 and 21.

Moreover, the arrangements of layers recited in claims 1 and 21 would be inconsistent with the teachings of Nonaka et al. Significantly, Nonaka et al. discloses the reflecting layer and the first dielectric layer as being distinct. Nonaka et al. does not teach or suggest that the first dielectric layer can be replaced by the reflecting layer, as would be required to obtain the present invention. Nonaka et al. does not anticipate or render obvious the invention as recited in independent claims 1 and 21. Claims 2-20 and 22-23 depend respectively from claims 1 and 21 and are patentable over Nonaka et al. for at least the same reasons.

Claims 1, 4, 6, 7, 11, 12, 15-17, and 21 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. Pub. No. 2002/0160306 in the name of Hanaoka et al. or 2003/0081537 in the name of Shinotsuka. Reconsideration of this rejection respectfully is requested.

Hanaoka et al. discloses a reflective layer, a second dielectric layer, a recording layer, a crystallization acceleration layer, a first dielectric layer and a substrate, formed in that order. Hanaoka et al. does not teach a barrier layer containing a mixture of carbide and oxide as recited in pending independent claims 1 and 21. The Office Action equates the dielectric layer disclosed by Hanaoka et al. with the barrier layer containing a mixture of carbide and oxide recited in pending claims 1 and 21. Applicants note, however, that dielectric layers and barrier layers are distinct, and are disclosed as such in the present application. Moreover, dielectric layers are recited in claim 2, which depends from claim 1. The attempt made in the Office Action to equate a dielectric layer with a barrier layer leads to incongruous results. The interpretation proposed in the Office Action is contrary to the disclosure and claims of the present application. Hanaoka et al. does not anticipate pending claims 1 and 21. Claims 2-20 and 22-23 depend respectively from claims 1 and 21 and are patentable over Hanaoka et al. for at least the same reasons.

Shinotsuka et al. discloses a second protection layer, a recording layer, a first protection layer, a reflection layer and a substrate, formed in that order. The features of Shinotsuka et al. are clearly different from those of the present invention. For example, Shinotsuka et al. teaches protection layers containing one oxide or carbide, mixed with a sulfide-containing dielectric. See paragraphs 83 and 84. Shinotsuka et al. does not anticipate a layer containing a *mixture* of carbide and oxide. In addition, Shinotsuka et al. discloses a double-sided disk having two sets of layers formed enantiomorphically, and does not teach that one set of layers is formed on a first substrate and the other set of layers is formed in the opposite order on a second substrate so as to obtain the present invention. Shinotsuka et al. does not anticipate pending claims 1 and 21. Claims 2-20 and 22-23 depend respectively from claims 1 and 21 and are patentable over Shinotsuka et al. for at least the same reasons.

Claims 3 and 5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nonaka et al. in view of U.S. Pat. No. 6,677,104 to Mizushima et al. Reconsideration of this rejection respectfully is requested.

Claims 3 and 5 depend from claim 1, which is patentable over Nonaka et al., as discussed above. Mizushima et al. has not been cited against claim 1. Even if Mizushima et al. had been cited properly against claim 1, it would not cure the deficiencies of Nonaka et al. Mizushima et al. discloses light-transmitting substrate, first dielectric layer, recording layer, second dielectric layer, reflective layer, and supporting substrate, formed in that order. Mizushima et al. and Nonaka et al. do not combine to achieve the invention as recited in claim 1 and 21. As noted above, the arrangement of layers is central to the teachings of Nonaka et al. Mizushima et al. does not provide the motivation necessary to rearrange the layers of Nonaka et al. to arrive at the invention. Moreover, rearranging the layers of Nonaka et al. would result in a structure that would operate in a manner entirely inconsistent with the teachings and objectives of Nonaka et al. In addition, Mizushima et al. teaches that recording takes place through a light-transmitting substrate; therefore, recording does not take place through a supporting substrate adjacent to reflective layer. In addition, the transformation sought by the Office Action requires that the first dielectric layer disclosed by Nonaka et al. can be replaced by the reflective layer of Mizushima et al.; however, the reflective layer is clearly distinct from the first dielectric layer. Neither reference provides motivation for the proposed modification, which comes only from an improper attempt at hindsight reconstruction of the recited invention. Claim 1 and its dependent claims 2-20 are patentable over the proposed combination of Nonaka et al. and Mizushima et al.

Application No.: 10/713,187

Docket No.: H6790.0005/P005

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Dated: April 18, 2005

Respectfully submitted,

By 

Mark J. Thronson

Registration No.: 33,082

Peter McGee

Registration No.: 35,947

DICKSTEIN SHAPIRO MORIN &
OSHINSKY LLP

2101 L Street NW

Washington, DC 20037-1526

(202) 785-9700

Attorneys for Applicant